

mostly after the hints of Goethe on the picture collection of *Philocrates* of old. Very pleasant to the eye, and well matched with the light colour of the sculptures, is the light tint of the walls,—but the glaring contrast of the pedestals, a dark porphyry or sienite, does not deserve equal commendation. In the upper rooms pictures and drawings are exhibited, and the works of Overbeck, Schnorr, Veit, Hess, &c., are great ornaments of this collection. Amongst the cartoons lately exhibited, that of the four *Facultates* for the great Aula of the university of Bonn, is most remarkable. Amongst the pictures of ancient times, a portrait of a man and his wife, by G. Peez, another portrait of a man, said to be of Hubert Van Eyck, a Holy Family, by Lorenzo Credi, &c., are worthy of attention. Especially interesting to our German neighbours is a portrait of Newton (wrongly, though, ascribed to Peter de Witte), as they say that its resemblance to Goethe is quite astonishing!

SHALL ARCHITECTS MEASURE?

SIR,—I am induced to offer you a few observations, in consequence of reading the report, in your last number, of the meeting of the Institute on the preceding Monday, and the remarks made by Mr. Tite on that occasion on the subject of measuring. I quite agree with Mr. Tite as to the importance to architects of a knowledge of measuring, but I would ask how architects are to attain this very useful and important branch of the profession, while any person professing measuring is excluded from the Institute (albeit many of the most valuable members of the Institute have been what many of the architects are pleased to call "measurers" in their early days), and while even Mr. Tite himself considers that any change in the mode of measuring should come from the "operatives rather than the profession." It should be remembered that measuring does not merely consist in the expert use of two five feet rods, or the adding together of two and two to make four, but that in order to measure and value correctly the different descriptions of work contained in a building, it is necessary to acquire a knowledge of the different operations which have to be performed in order to attain certain results—of the different kinds and amount of labour in an elaborate piece of joinery; or to produce a Corinthian capital or cornice, or a piece of Gothic tracery from a rough block of stone. And here I would venture to suggest to Mr. Tite to ask some of the "operative" authorities in measuring, how they would fix a price to stone per foot cube, which should apply in such a case as I have alluded to, and at the same time to stone, as used by engineers in railway work, &c.

Returning, however, more immediately to my subject, I would observe, that the information thus gained is that which an architect requires in order to prepare a proper specification, and working drawings, for any work he may have to execute; and without which, instead of being able properly to superintend and direct others, he must always be at the mercy of his clerk of works, or other people. It is the want of this sort of knowledge which leads to the grievous results which we too often see in cases of competition (witness, as recent cases, the Kensington workhouse and the Dalton Literary Institution), where the real estimates are so much at variance with the amounts proposed to be expended in the first instance, and which tend to throw so much discredit and excite so much prejudice against the profession generally. I could enter much further into this subject but for fear of trespassing too much on your space and your readers' patience; but at some future opportunity, should you deem this worthy of notice, I hope to resume the subject.

In conclusion, I should like to be informed whether any of the candidates for district surveyorships have been examined on this branch of their profession. I know that in the list of subjects upon which it was proposed to examine the candidates this was included; but I am quite sure that some, had they been questioned as to measuring, would have been sorely puzzled, though in other respects taking, and deservedly so, a high standing.

I am, Sir, &c.,

G. R.

RAILWAY JOTTINGS.

A NEW and rather an odd point of law was decided on Thursday week in the Court of Exchequer, in the case of *Wilson v. Lord Curzon*, to wit, that the only person whom the secretary of a provisionally registered company can sue, for arrears of salary due to him, is himself, if he happens to have taken a leading interest in the promotion of said company; for the plaintiff, in such a suit against Peter to pay Paul as this would be, is not unreasonably, perhaps, supposed "to have appointed himself," as the official main-spring of the incipient company.—The question of warming railway carriages, lately recommended by us to the notice of our readers, is still kept astir by the continued frosty cold of the present season. The *Liverpool Journal*, reverberating the echo, asks why our railway carriages are not yet warmed, although it is now nearly two years since the question was first propounded; and although, since that time, railway carriages in America have been heated, and some of the Belgian and French companies also have, during the present winter, adopted means to warm their carriages. "Have any English companies taken up the scheme? No, not one that we know of. Some may ask, is the thing practicable? or will it pay? It is easily practicable, and it will pay better than other outlay on any line adopting the plan. The swift boats on the several canals have long had the scheme in operation—to warm their best cabins. [We can not only testify to the fact, and the comfort, of this practice, on canals through routes where railways had not penetrated, but that respectable parties have often preferred travelling by canal on this account alone, even where railways have now penetrated. On the canal between Edinburgh and Glasgow, the worst cabins, no less than the best, are comfortably heated, as others are, somewhat in the following way:] Copper tubes, about 4 feet long and 6 inches in diameter, are filled with hot water, and laid on the cabin floor; these will preserve and give out heat quite sufficient for comfortable warmth during a space of five or six hours. Indeed," adds the journal, "we have travelled with one for eight hours, the water unchanged, and there was a comfortable heat at the end of the journey. How, you may say, can this plan be applied to carriages? Nothing easier. In all carriages a narrow recess or box may be made across and under the floor where the passengers' feet rest, betwixt the seats, but parallel with them; and if the make of the carriage frame will allow of an outside opening to put in the hot-water tubes, they may be fitted with doors. If this is not practicable, let the door be in the floor, and be perforated, shutting over the door, and then covered with the mat or carpet; this will equalize and diffuse the heat. One or two stations will require a boiler to heat the water; there must be tubes to hold it, and the present staff of porters would place them in the carriages in a few moments, even in the longest train. Think of going to London, or elsewhere, in this cold weather, warm all the way, and with warm feet at the end. Reader, would you not give an extra shilling for such a luxury?" The great and universal importance of this subject in a sanitary point of view, no less than for the sake of mere comfort, on which health often so much depends, will be an excuse for devoting so much space to this section of our present jottings.—The London and North Western Company, it is said, realize no less than 20,000*l.* a year in rents from restaurants alone upon their various lines.—The grand central station about to be erected by this company at the Chester terminus of the Chester and Crewe branch is estimated to cost 80,000*l.*—The platform for the Britannia and Conway bridges, on which the tubes are to be constructed, according to a contemporary, "are now in course of erection, and a considerable quantity of the iron is already manufactured. The platform at the straits will be 1,000 feet in length, with wharfs and sheds to protect the workmen. In a few weeks the construction of the tubes themselves will be commenced and rapidly proceeded with. The apparatus for raising these ponderous structures is also in a forward state, under the direction of Mr. Edwin Clark, the engineer appointed by Mr. Robert Stephenson to superintend the operations, and in a short time the aerial gardens of ancient Babylon will be more than rivalled by

this modern monument of enterprise and ingenuity."—At the opening of the Lancaster and Carlisle line, the following statistical facts were stated by Mr. Mould, the contractors' superintendent, at the banquet given by his employers, Messrs. Stephenson, Brassey, and Mackenzie.—In the blasting of rocks no less than 4,200 barrels, or 200 tons, of gunpowder had been used. The patent fuses alone, if put on a line, would reach 400 miles. The number of nights during which the men worked was 152,147. The number of horses employed was 10,500. No fewer than 400,000 yards required blasting, as it could not be removed by any other means. The number of bridges on the line was 219; of culverts, 230; and of viaducts, 500. The greatest number of men employed was about 10,000, and the number of workmen altogether was equal to 3,000,000 in one day; whilst the excavations averaged 100,000 cubic yards per mile. The number of waggons employed was 2,200, which, if extended in a line, would reach nearly five miles; and the temporary wheeling planks, placed end to end, would extend to thirty-five miles.—The inhabitants of Penrith are beginning to reap the benefits of railway transit. The price of coal in that town, which has long been 1*s.* per cwt., is now reduced to 8*d.* per cwt., a saving of 33 per cent. to the consumer.—Galignani cites a letter from Bordeaux, in which it is stated, that dilapidations have been observed in the tunnel of the Paris and Bordeaux Railway, under the quarries of Bel Air, at Lormont. Some of the supporting piers have given way, and fissures are perceptible in the vault. The director of the works took immediate means to prevent the damage from extending; and information of what had occurred was sent to the board of directors.—The following matter-of-fact railway romance is from a sketch by Elihu Burritt, the learned, and something more than merely learned, American blacksmith:—During a storm and violent gale, the long railway bridge across the Connecticut, between Hartford and Springfield, was, *en masse*, lifted by the wind and thrown into the river beneath, which is here 200 yards in breadth, with a powerful current, at this time swelled to a dreadful height by an unusual flood of rain. The line here crosses by the bridge at a height of 50 feet above the river, and after an abrupt curve has been passed. The train left Springfield at the usual time on the present occasion, when there were no electric telegraphs, we suppose, to announce the peril in the way. "The storm raged violently without," says Elihu, "but the passengers within congratulated themselves on their comfortable situation, thinking of the pleasant homes and firesides which they soon expected to reach. On came the train—the engine blowing off its head of steam—breasting its way nobly against the gale, which almost threatened to check its progress, and the hot iron hissing furiously in the falling rain. No one knew or even suspected that the bridge was gone. For two years, by day and night, the trains had passed and re-passed, until safety had obliterated a thought even of the possibility of danger. But no bridge was there to receive them, and the long train, with its precious freight, rushed swiftly on to this precipice of destruction! It was not customary to stop there, except to check the speed for the landing of passengers; but the people there had learned the loss of the bridge, and kept a sharp look out for the approaching train. It comes! The word is given, and—they are safe. Every heart leaped from its place, and the head swam giddy with fear, as the thought came of that fearful leap in the dark, and long will the passengers remember that dreadful ride, and the friendly, yet fearful cry, 'The bridge is gone.'"

LABOURER'S COTTAGE: PREMIUM FOR DESIGN.—In addition to the list already published, the Society of Arts offer a special premium of thirty guineas for the best design and working drawings of a labourer or workman's cottage, to combine cheapness with convenience, comfort, wholesomeness, and neatness. To be accompanied by a specification of the works and internal arrangements, and an estimate of the cost in the district where the designer lives. The drawings are to remain the property of the designer, with the condition only of their immediate publication.